

Claims

1. A hair detergent composition comprising the following components (a), (b) and (c):

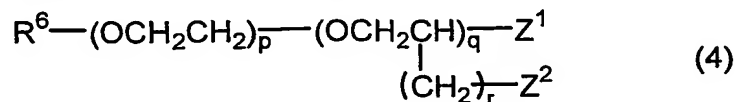
(a) an anionic surfactant,

5 (b) a carboxylic acid selected from the group consisting of hydroxymonocarboxylic acids, dicarboxylic acids and hydroxydicarboxylic acids, a salt thereof, and mixtures thereof and

10 (c) a silicone derivative having a group containing both a hydroxy group and a nitrogen atom as a side chain thereof bonded to a silicon atom.

2. The hair detergent composition of Claim 1, further comprising, as Component (d), an organic solvent selected from the group consisting of (d1), (d2), (d3), (d4), (d5),
15 and mixtures thereof:

(d1) compounds represented by formula (4):



wherein, R^6 represents a hydrogen atom, a lower alkyl group or a group $\text{R}^7\text{-Ph-R}^8$ (R^7 : a hydrogen atom, a methyl group or a methoxy group, R^8 : a bond, or a saturated or unsaturated
20 divalent C_{1-3} hydrocarbon group, Ph: a paraphenylene group), Z^1 and Z^2 each represents a hydrogen atom or a hydroxy group, and p, q and r each stands for an integer of from 0

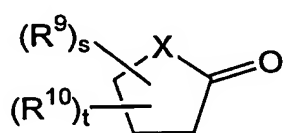
to 5, with the proviso that when $p=q=0$, Z^1 does not represent a hydrogen atom and R^6 represents neither a hydrogen atom nor a group $R^7\text{-Ph-}$,

(d2) N-alkylpyrrolidones having a C_{1-18} alkyl group bonded to the nitrogen atom,

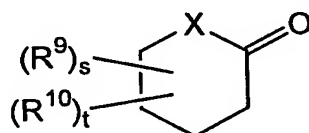
(d3) alkylene carbonates having 1 to 4 carbon atoms,

(d4) polypropylene glycols having a molecular weight of from 200 to 5,000, and

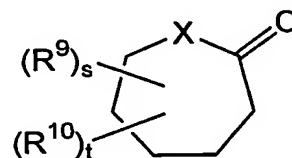
(d5) lactones or cyclic ketones represented by the following formula (5), (6) or (7):



(5)



(6)



(7)

wherein, X represents a methylene group or an oxygen atom, R^9 and R^{10} represent substituents, respectively, which are different from each other, and s and t each stands for a number of 0 or 1.

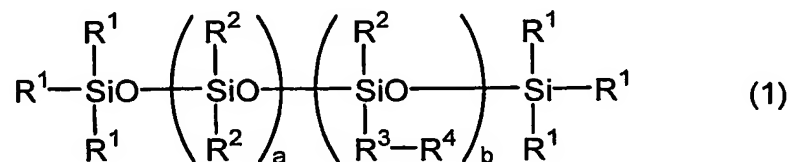
3. The hair detergent composition of Claim 1, which has a pH at 25°C of 4.5 or less when diluted to 20 times the weight with water.

4. The hair detergent composition of Claim 1, wherein the anionic surfactant as Component (a) is selected from the group consisting of sulfate-, sulfonate-,

carboxylate- type surfactants, and mixtures thereof.

5. The hair detergent composition of Claim 1, wherein the hydroxymonocarboxylic acid as Component (b) is selected from the group consisting of glycolic acid, lactic acid, hydroxyacrylic acid, oxybutyric acid, glyceric acid, and mixtures thereof, wherein the dicarboxylic acid as Component (b) is selected from the group consisting of malonic acid, succinic acid, glutaric acid, adipic acid, maleic acid, fumaric acid, phthalic acid, oxalic acid, and mixtures thereof, and wherein the hydroxydicarboxylic acid as Component (b) is selected from the group consisting of malic acid, tartaric acid, and mixtures thereof.

6. The hair detergent composition of Claim 1, wherein the silicone derivative as Component (c) is represented by the following average formula (1):

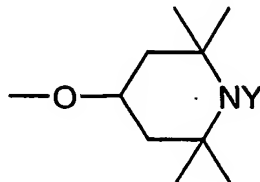


wherein, R¹ each independently represents a monovalent hydrocarbon group, a hydroxy group or an alkoxy group,

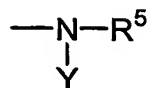
R² each independently represents a monovalent hydrocarbon group,

R³ each independently represents a divalent C₁₋₁₀ hydrocarbon group,

R^4 each independently represents a group represented by the following formula (2) or (3):



(2)



(3)

wherein, Y each independently represents a hydrogen atom or a group: $-\text{CH}_2\text{CH}(\text{OH})-\text{R}^3-\text{OH}$ (R^3 has the same meaning as described above), R^5 each independently represents a hydrogen atom or a group $-\text{R}^3\text{NY}_2$ (Y and R^3 have the same meanings as described above), with the proviso that all the Ys do not represent a hydrogen atom simultaneously,

a stands for a number of from 25 to 1,000,

b stands for a number of from 1 to 200.

7. The hair detergent composition of Claim 2, wherein (d1) is selected from the group consisting of ethanol, 1-propanol, 2-propanol, butanol, isobutanol, ethylene glycol, propylene glycol, 1,3-butanediol, benzyl alcohol, cinnamyl alcohol, phenethyl alcohol, p-anisyl alcohol, p-methylbenzyl alcohol, phenoxyethanol, 2-benzyloxyethanol, methylcarbitol, ethyl carbitol, propyl carbitol, butyl carbitol, triethylene glycol monoethyl ether, triethylene glycol monobutyl ether, glycerin, and mixtures thereof, (d2) is selected from the group

consisting of N-methylpyrrolidone, N-octylpyrrolidone, N-laurylpyrrolidone, and mixtures thereof, (d3) is selected from the group consisting of ethylene carbonate, propylene carbonate, and mixtures thereof, (d4) is a propylene glycol having a molecular weight of from 200 to 10,000, and (d5) is selected from the group consisting of γ -butyrolactone, γ -caprolactone, γ -valerolactone, δ -valerolactone, δ -caprolactone, δ -heptanolactone, γ -butyrolactone, γ -caprolactone, cyclopentanone, cyclohexanone, cycloheptanone, 4-methylcycloheptanone and mixtures thereof.